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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/820,789	03/30/2001	Nikolas Bergerhoff	2000P01644	3534
24131 7590 10/01/2007 LERNER GREENBERG STEMER LLP P O BOX 2480 HOLLYWOOD, FL 33022-2480			EXAMINER TSE, YOUNG TOI	
			ART UNIT 2611	PAPER NUMBER
			MAIL DATE 10/01/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

09/820,789

Applicant(s)

BERGERHOFF, NIKOLAS

Examiner

YOUNG T. TSE

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 09 July 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-4, 6 and 8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4, 6 and 8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 July 2007 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Response to Arguments*

1. Applicant's arguments filed on July 09, 2007 have been fully considered but they are not persuasive.

Applicant argues that the reference sign 44 shown in Figure 4 properly refers to the output filter.

The examiner respectfully disagrees, as shown in Figure 4, the reference sign 44 is labeled for the resistor only. However, the output filter includes both the resistor and the capacitor. In other words, the reference sign 44 should be labeled for both the resistor and the capacitor as labeled by the reference sign 44 of Figure 3.

Regarding the objection of claim 7 which has been incorporated into the independent claims 1 and 3. The examiner agrees that the specification supports the recitation of "or an electric current" in the Summary of the Invention at page 3, lines 8-10 of the specification. However, both independent claims 1 and 3 recite the limitation of "wherein the receiver includes a sensor to convert a magnetic flux density of the signal or a magnetic field strength of the signal to an electrical voltage or an electrical current." In other words, the Detailed Description of the Invention of the specification fails to describe which signal of the sensor to convert a magnetic flux density or a magnetic field strength to an electrical voltage or an electrical current since claims 1 and 3 recites the signal is the signal before reshaping by the transmitter, wherein the sensor is

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located in the receiver which appears use to sense a contactless or wire-less signal of the transmission from the transmitter.

Regarding the art rejection of claims 1-4 and 6-8, Applicant argues that independent claims 1 and 3 have been amended to incorporate the limitations of claim 7 and Quist discloses a flux sensor, but does not give any hint as to how to use this flux sensor in the improved contactless signal transmission method.

The examiner respectfully disagrees, the amendment of claims 1 and 3 recites that wherein the receiver includes a sensor to convert a magnetic flux density of the signal or a magnetic field strength of the signal to an electrical voltage or an electrical current. Clearly, the signal is the signal before the reshaping of the transmitter, not the contactless or wire-less signal as now argued. Therefore, claims 1-4 and 6-8 are unpatentable over Mabuchi et al. in view of Quist et al. Although the claims are interpreted in light of the specification, but not the measure of invention, limitations from the specification are not read into the claims for the purpose of avoiding the prior art. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

### ***Drawings***

2. The drawings were received on July 09, 2007. These drawings are acceptable.
3. The drawings are objected to because the reference sign "44" labeled for the output filter is mislabel because the output filter includes both the resistor and the capacitor, not just the resistor. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the

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application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Specification***

4. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: wherein the receiver includes a sensor to convert a magnetic flux density of the signal or a magnetic field strength of the signal to an electrical voltage or an electrical current as recited in claims 1 and 3.

***Claim Objections***

5. Claims 1-4, 6 and 8 are objected to because of the following informalities:

In claim 1, line 3, "the signal transmission" should be "the contactless signal transmission" and line 7, "of the signal or" should be "or". Wherein the dependent claim 2 depends upon the independent claim 1.

In claim 3, line 3, "the signal transmission" should be "the wire-less signal transmission" and line 9, "of the signal or" should be "or". Wherein the dependent claims 4, 6 and 8 depend upon the independent claim 3.

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1-4, 6 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mabuchi et al. (US Patent No. 4,007,455, hereafter "Mabuchi") in view of Quist et al. (US Patent 6,199,018 B1, hereafter "Quist").

Regarding claims 1 and 3, Mabuchi discloses a radio control transmitter in Figure 1 for transmitting a rectangular wave to a radio control receiver in Figure 3 through a wireless communication channel. In Figure 1, the radio control transmitter comprises an encoder 1 having an oscillator for generating a rectangular wave (a) (see Fig. 2A), mono-stable multivibrators 7-1 through 7-3 and variable resistors 8-1 through 8-3 for

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selecting pulse widths in the responsive mono-stable multivibrators 7-1 through 7-3, diodes 9-1 through 9-3, and differentiating circuits 10-1 through 10-3 (see Figs. 2B-2C), the output of the encoder 1 provides a reshaping signal (d) (see Fig. 2D) to the wireless transmission channel in such a manner that at least one of reproducibility and transmissibility is exacerbated through the block elements 2-5 and the antenna of the radio control transmitter. The radio control receiver comprises at least a detector 12, which supplies an output signal (h) (see Fig. 4B) when reshaping is present. During a signal transmission between the transmitter and the receiver, the signal transmission occurs using variable electromagnetic waves, for example, the electromagnetic waves of figures 2A-2F in the transmitter and figures 4A-4F in the receiver are variable.

Although Mabuchi does not explicitly show or suggest that the receiver circuit comprises a sensor to convert a magnetic flux density or a magnetic field strength of a signal to an electrical voltage or an electrical current.

Quist discloses a related transmission/reception circuit in Figure 2B comprising a microprocessor 28 receives as an input the output signals from an electromagnetic flux sensor 36 that includes a flux sensing device and a conditioning amplifier. The flux sensor 36 should be positioned appropriately with respect to an associated machine 11 to detect the magnitude of the flux existing in the stator of the machine 11. The flux sensor 36 allows for a determination of the rotor speed and the load of the machine 11 (see column 8, line 63 to column 9, line 6). The processor 28 is coupled to a communication board 26, a modem 30 or an RF transceiver 32 for further processing of the processed signal.

Therefore, it would have been obvious to one of ordinary skill in the art to use a sensor in the front end receiver section of Mabuchi's receiver circuit to convert a magnetic flux density or a magnetic field strength to an electrical voltage or an electrical current as taught by Quist in order to determine counter signal various parameters of gear or shaft such as speed, acceleration and/or position of a motor.

Regarding claims 2 and 4, the radio control transmitter includes the encoder 1 which activates and reshapes the rectangular wave in a predetermined manner in time and the radio control receiver includes a comparison device 12 which checks whether the received signal is pre-emphasized in the predetermined manner in time.

Regarding claim 6, the encoder 1 includes at least one diode 9-1, 9-2, or 9-3, which is included in a line between the oscillator 6 and the antenna.

Regarding claim 8, the encoder 1 includes a series circuit, comprising a diode 9-1, 9-2, or 9-3 and a differentiation element 10-1, 10-2 or 10-3, in a line between the oscillator 6 and the antenna.

### ***Conclusion***

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the



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shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to YOUNG T. TSE whose telephone number is (571) 272-3051. The examiner can normally be reached on Monday-Friday.

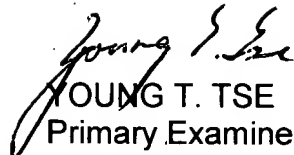
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mohammad H. Ghayour can be reached on (571) 272-3021. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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YOUNG T. TSE  
Primary Examiner  
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